

ELECTROPLATING SOLUTION CONTAINING ORGANIC ACID COMPLEXING AGENT

ABSTRACT

A solution for use in connection with the deposition of one or more metals on electroplatable substrates. This solution includes water; a metal ion; and a complexing agent. The complexing agent is advantageously an organic compound having between 4 and 18 carbon atoms which includes at least two hydroxyl groups and a five or six membered ring that contains at least one oxygen atom. The compound is present in an amount sufficient to complex the metal in the solution and inhibit oxidation of the metal. In particular, the complexing agent and metal ion are present in a concentration ratio of between about 3:1 and 9:1 to reduce or minimize agglomeration of the substrates during electroplating. If necessary, a suitable pH adjusting agent can be included in the solution to maintain the pH of the solution in the range of between about 3.5 to 5.5. At the preferred pH range, the solution is particularly useful for electroplating composite articles that have electroplatable portions and non-electroplatable portions without deleteriously affecting the non-electroplatable portions.